10. SPECIAL PRECAUTIONS

Danger:

Highly corrosive. Causes skin and eye damage. May be fatal if swallowed. DO NOT get in eyes or on clothing. Wear goggles and CLEAN protective gloves when handling. Irritating to nose and throat. DO NOT breath dust and fumes. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

This product is toxic to fish. Do not discharge into lakes, streams, ponds or public waters unless in accordance with an NPDES permit.

Strong oxidizing agent. Mix this product only with water. Use clean dry utensils. Open container only where adequate ventilation is available. Do not add this product to any dispensing device containing remains of any other product. In case of contamination/decomposition, do not reseal container. If possible, isolate container in open air and flood with large volumes of water.

11. STORAGE AND DISPOSAL

Storage:

Keep product dry and in a tightly closed container when not in use. Store in cool, dry, well ventilated area, keeping it away from heat sources and/or open flames. Handle container with care--DO NOT drop, roll or skid. In case of decomposition, isolate container (if possible) and flood with large amounts of water to dissolve all material. Follow "Spill and Leak Procedures" as outlined in Section 8 of this Data Sheet

Keep in original container. DO NOT store/transfer/repack this product in any other container without the approval/authorization of Severn Trent Services, Inc.

Disposal:

Follow "Spill and Leak Procedures" as outlined in Section 8 of this Data Sheet. DO NOT reuse empty container. Wash thoroughly with water and discard clean container in a safe place.

Do not contaminate food or feed by storage, disposal or cleaning of equipment.

All information, recommendations and suggestions appearing herein concerning our products are based upon tests and data believed to be reliable; however, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the products described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made Severn Trent Services, Inc., as to the effects of such use, the results to be obtained or the safety and toxicity of the products nor does EIC assume any liability arising out of use by others, of the products contained herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations. Nothing herein contained is to be construed as a recommendation to infringe any patent.

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Severn Trent Services, Inc. L166 kgs0703

SANURIL 115 Material Safety Data Sheet



SANURIL® 115

Mixed Halogen Formulation

Material Safety Data Sheet

1. GENERAL PRODUCT INFORMATION

Product Name SANURIL® 115
US EPA Reg. No. Synonyms Calcium hypochlorite and 1-bromo-3-chloro-5,5-dimethylhydantion
Product Use NIOSH* Ratings HIGH HEALTH HAZARD

0 NON COMBUSTIBLE

2 MODERATELY REACTIVE

*Ratings based upon *Identification System for Occupationally Hazardous Materials (1974)*

DEPARTMENT OF TRANSPORTATION INFORMATION

Proper Shipping Name Calcium Hypochlorite, Hydrated Mixture RQ
Hazard Class Oxidizer
UN Number UN2880
Shipping Class 55
DISTRIBUTED BY:
Company Name:

MANUFACTURER INFORMATION

Raritan Engineering Company Street Address: 530 Orange Street City, State, Zip: Millville, NJ 08332 Office Phone: 856-825-4900

Company Name Severn Trent Services, Inc.

2. HAZARDOUS INGREDIENTS

Chemical Name	% of Mixture	TLV	PEL	CAS#
Calcium Hypochlorite	69.30%	N/A	N/A	7778-54-3
1-bromo-3-chloro-5,5-dimethylhydanto	in 0.94%	10	15	126-06-7
TLV/PEL OF MIXTURE (If known)	N/A			

B. PHYSICAL PROPERTIES

Boiling Point	 None; dry solid	Vapor Density		N/A	
Melting Point	 N/A	Vapor Pressure		N/A	
Specific Gravity	 1.8 min (tablet)	Percent Volatiles		N/A	
Solubility in Water	 6% by weight (min)				
рН	 8.3 (1% solution)				
Density (@ 20°C)	 1.0				
Color	 White solid table	et			
Odor	 Slight chlorine. N-bromo compounds have a stench like odor.				
	It is not as "sweet	et" as chlorine			

4. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Highly toxic, 10-1 ppm (fish) 96-hour TLM LC50

5. FIRE AND EXPLOSION DATA								
Flash Point	N/A	Explosive Limit		Lower: N/A				
Auto Ignite Temperature	N/A			Upper: N/A				
Flammability Limits In Air	N/A	Extinguishing Media		Water ONLY				

Severn Trent Services, Inc. Page 2

SANURIL 115 Material Safety Data Sheet

FIRE AND EXPLOSION DATA (Cont.)

Special Fire Fighting Procedures:

This product is a strong oxidizer. Use ONLY water in the event of a fire or a violent reaction may result by contamination. Wear self-contained breathing apparatus.

Unusual Hazard Information:

Contamination with organics, acids, alkalis, and strong reducing agents will result in fire or rapid decomposition. Spontaneous decomposition temperature for this product is 350°F. In large fires fueled by other materials, the product may smolder for prolonged periods emitting dense black smoke.

6. HEALTH HAZARD INFORMATION

This section describes the nature of the hazardous effects resulting from exposure to this product.

Routes of Exposure:

Ingestion: Highly toxic by ingestion. May cause severe inflammation and erosion to the lining of the esophagus and stomach. Promptly induces vomiting.

Eye Contact: Mild to moderate exposure to dust causes irritation of the eyes. Severe exposure

can cause permanent (irreversible) damage.

Skin Contact: Mild to moderate exposure to dust may irritate the skin. Greater exposure can cause

severe irritation.

Inhalation: Mild to moderate exposure to dust causes irritation to the mucous membranes of the respiratory passages (nasal and throat).

Effects of Overexposure:

Acute: Ingestion may result in erosion of the esophagus and stomach. Vomiting, gastric

bleeding and possible circulatory collapse. Exposure may cause temporary or permanent tissue damage to skin, eyes, and respiratory passages.

Chronic: Prolonged and intensive exposure may result in tissue damage to body surfaces

unless promptly treated.

Emergency and First Aid Procedures:

Eyes: IMMEDIATELY flush eyes with large amounts of water for at least 15 minutes,

holding lids apart to ensure flushing of entire eye surface. SEEK MEDICAL

ATTENTION.

Skin: Wash with plenty of soap and water. Remove contaminated clothing and footwear.

Wash clothing before reuse. Footwear should be decontaminated before reuse.

Seek medical attention if symptoms persist.

Inhalation: Get person out of contaminated area to fresh air. If breathing has stopped,

resuscitate and administer oxygen if readily available. SEEK MEDICAL

ATTENTION.

Ingestion: NEVER give anything by mouth to an unconscious person. Drink large amounts of

water. DO NOT induce vomiting. Call a physician immediately!

7. REACTIVITY DATA

Conditions contributing to instability:

Contamination with flammables, organics may cause fire or explosion. Acids will release chlorine and bromine gas.

Incompatibility (Materials to avoid):

Acids, flammables, organic materials, readily oxidizable materials and strong reducing agents.

Severn Trent Services, Inc. Page 3

SANURIL 115 Material Safety Data Sheet

Hazardous decomposition or byproducts:

Chlorine gas, hydrogen bromide, bromine and hydrogen chloride.

Hazardous polymerization:

This product is not known to polymerize.

SPILL OR LEAK PROCEDURES (DEVELOP SPILL PLAN)

Neutralizing Chemicals:

Sodium sulfite, sodium bisulfite or sodium metabisulfite.

Steps to be Taken if Material is Released and/or Spilled:

Wear appropriate protective gear: rubber gloves and boots. Chemical splash goggles and breathing apparatus if necessary. Avoid contact with clothing--fire may result.

Dilute spill area with large quantities of water, at least 100 gallons of water per pound of material. Avoid contact with resulting solution. Neutralize with sodium sulfite, sodium bisulfite or sodium metabisulfite. Collected neutralized solution should be disposed of through sewage treatment plant. Prior approval from plant personnel as well as Local, State and Federal environmental agencies should be obtained. File environmental spill notifications if necessary.

Waste Disposal Methods:

DO NOT dispose of material in dry form in waste container--fire may result. Proceed with spill procedure as outlined above.

Additional Precautions:

Do not attempt to recover solid material. Do not dispose of material in waste container. Do not reuse empty container, but place in trash collection.

9. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements:

Work in well ventilated areas. Storage area should be well ventilated.

Specific Personal Protective Equipment:

Respiratory protection is not required under normal use, however when necessary, use NIOSH/MSHA approved respirator following manufacturer's recommendations. NIOSH approved dust mask is essential where dusting may occur.

Eye Protection: Chemical safety glasses should be worn.

Protective Gloves: Gloves should be worn. Rubber or other chemically resistant materials are recommended as suitable material.

Other Clothing and Equipment: Protective clothing should be worn so as to minimize skin contact. Avoid contact with clothing. Fire may result from contact of dry material with cloth or flammables.

Severn Trent Services, Inc. Page 4